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7590 John R. Pivnichny, Ph.D. IBM Corporation, N50/040-4 1701 North Street Endicott, NY 13760			EXAMINER CHANNAVAJJALA, SRIRAMA T	
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Please find below and/or attached an Office communication concerning this application or proceeding.

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**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Application Number: 10/040,799
Filing Date: January 07, 2002
Appellant(s): FREY ET AL.

John R. Pivnichny
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 11/18/2009 appealing from the Office action mailed 7/21/2009.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

No amendment after final has been filed.

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

6,405,220	Brodersen et al.	06 2002
6,292,827	Raz	09 2001

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

1. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

2. Claims 1-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brodersen et al., [hereafter Brodersen], US Patent No. 6405220 filed on July 6,2001 in view of Raz, US Patent No. 6292827

3. As to Claims 1,8,15, Brodersen teaches a system which including 'processing transactions' [col 3, line 5-11], processing transactions corresponds to transactions entering into transaction log, creating transaction files to other workgroup user clients as detailed in col 3, line 5-11;

'providing a plurality of processing databases including at least one relational database and one sequential database and one spreadsheet database each of said processing databases having a respective agent' [fig 1, fig 9, col 15, line 27-36], plurality of processing databases corresponds to fig 1, fig 9, elements 3, 23a-23c, 305 and their respective agent corresponds to fig 9, element 315; including at least one relational database corresponds to Brodersen's fig 9, element 3 master database because Broderson specifically teaches not only database management system particularly supporting "transaction processes against database" including updating the transactions into master database as detailed in col 4, line 41-46;

'providing a transaction database' [col 15, line 37-43, line 58-65], transaction database corresponds to transactions in the transaction log as detailed in col 15, line 58-65

'writing one or more transactions, each having included therein a key and a detail, from a first of said plurality of processing databases to said transaction database' [col 10, line 8-13, line 59-64] Brodersen specifically teaches writing transaction log to nodes, particularly function of log on a node is to record a transaction for propagation to central system as detailed in col 10, line 8-13;;

'periodically searching, using a processing agent from a second of said plurality of processing databases' [col 16, line 5-11], Brodersen specifically teaches multi-user docking clients that allows processing data between multiple user databases and master database as detailed in col 16, line 5-11; 'transaction database for a key and detail to determine whether said processing agent should process said one or more transactions' [col 16, line 21-26] Brodersen specifically teaches creating transaction in local database, entering the transaction into transaction log and processing transactions as detailed in col 16, line 21-26;

'updating a record in said second of said plurality of processing databases, by using said key and detail' [col 16, line 37-40], Brodersen specifically teaches transaction log entries are copies on the master database and updating the transaction into master database as detailed in col 16, line 37-40.

It is however, noted that Brodersen does not specifically teach 'databases of plurality of types', plurality of databases having a different type than said first of said plurality of databases', although Brodersen teaches distributed transactional databases that allows multiple workgroup user clients, updating transaction log or files between headquarter master database and workgroup database as detailed in fig 9, col 15, line

15-26 . On the other hand, Raz specifically teaches 'databases of plurality of types' [col 9, line 31-35], databases plurality of types corresponds to Raz's RDBMS and non-RDBMS as detailed in col 9, line 31-35; 'plurality of databases having a different type than said first of said plurality of databases' [fig 4, col 7, line 52-54, col 9, line 31-35], different type of databases corresponds to relational databases and non-relational databases because JDBC supports open data base connection and a standard way of interfacing with different types of databases as detailed in col 7, line 52-54. furthermore, Raz specifically supports atleast multiple databases having different types such as "oracle", "lotus" [fig 4, fig 5C, element 22].

It would have been obvious to one of the ordinary skill in the art at the time of applicant's invention to incorporate the teachings of Raz into Brodersen et al. because both Raz, Brodersen are directed to distributed databases, more specifically Brodersen is directed to database management system including master database server and work group user client databases, creating transaction files and updating the transaction into workgroup databases [fig 9, Abstract], while Raz is directed to dynamically distribution of data and management of information, more specifically, dynamically re-distributing data between data servers and clients [see Abstract, col 3, line 28-35].

One of the ordinary skill in the art at the time of applicant's invention would have been motivated to combine the references because that would have allowed users of Brodersen et al. to use Raz's "open data base connection or "ODBC" protocol that

establishes a standard way of interfacing with different types of databases [Raz: col 7, line 52-54], more specifically connecting both relational database and non-relational database that permits an exchange of information between client and server databases, furthermore dynamically controls the location, access and transfer of information between client and servers in a network system as suggested by Raz [col 1, line 55-67], also would have been obvious to substitute and/or connect atleast multiple databases of different types such as "oracle", "lotus" [Raz: fig 4, fig 5C, element 22], to achieve the predictable results of "processing multiple transactions from different databases", bringing the advantages of reliable network for information or database transactional information, and improving the performance of the dynamic distribution information [col 1, line 34-36].

4. As to Claim 2,9,16, Brodersen teaches a system which including 'transaction database is a messaging database' [col 5, line 8-15, fig 1].

5. As to Claim 4, 11,18, Brodersen teaches a system which including 'one or more transactions has a processor designation specifying which of said plurality of processing databases is affected by said each of said one or more transactions' [col 5, line 18-26, line 49-55].

6. As to Claims 6,13, Brodersen teaches a system which including 'transferring said one or more transactions from said transaction database to said second of said plurality

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of processing databases prior to said step of updating a record' [col 8, line 51-67, col 9, line 1-4, col 10, line 37-50]

7. As to Claims 7,14,19, Brodersen teaches a system which including 'setting a status flag in said one or more transactions' [col 11, line 1-17].

8. As to Claim 3, 10, Raz teaches a system which including 'transaction database, is a LOTUS NOTES database and said plurality of processing databases are adapted to read said LOTUS NOTES database' [fig 4, col 8, line 39-42].

9. As to Claim 5, 12, 17, Brodersen disclosed 'key includes a wildcard character' [col 16, line 62-67].

(10) Response to Argument

a) At page 5-6, applicant argues "Appellants subsequently amended independent claims 1,8,15 in response to the Appeal Decision to specifically require the respective agent to be included in each of said processing databases, a recitation fully supported by Appellants' specification. Such amending has overcome the Board's interpretation of the claim term "having" to mean "being associated with". Brodersen's agent or program may be associated with the database, but it is not described as included in the database.

The Examiner states that prior art (Brodersen in view of Raz) still teaches databases including respective agent and refers to Board's decision page 11, line 11-14. This is in error. The paragraph at page 11, line 11-14 uses the term "having" in its ordinary meaning of "being associated with". (see previous paragraph of Board's decision.). As argued above claims 1,8,15 have since been amended to further limit the "having" requirement and presently recite an "included in" requirement.

The examiner also states (9/18/2009 office action page 10, top) that Appellants agree that Brodersen suggests databases including respective agent. This is also in error. Appellants have stated (page 8, line 22-23 of Amendment filed 2/11/2009) that Brodersen suggests that each of the plurality of database has an agent. Again the verb has is referring to the "having requirement which has now been further limited to "included therein" in claims 1,8,15....

As to the above argument [a], Examiner acknowledges applicant's response filed on 6/1/2009, subsequently issued final office action on 7/21/2009 [note: amendment to claims 1,8,15, as filed with RCE filed on 2/11/2009 and issued non final office action on 3/3/2009]. Further, examiner also considered Board's interpretation of the claim term "having"..., its ordinary meaning of "being associated with" [Board's opinion page 11, dated 12/17/2008], also, Board clearly agreed with Examiners' 35 USC 103(a) combined teachings of Brodersen in view of Raz [Board's decision: page 11].

It is however, noted that Board's opinion did not specifically suggests any limitation[s] to overcome 35 USC 103(a) particularly Brodersen in view of Raz rejection. As best understood by the examiner and in view of Board's decision, prior art strongly teaches databases including respective agent [see Board's decision: page 11, line 11-14, office action: page 4]. It is further noted that "Appellants have stated (page 8, line 22-23 of Amendment filed 2/11/2009) that Brodersen suggests that each of the plurality of databases has an agent" [Brief: page 6, line 12-15]. As further strongly teaches by Brodersen such plurality of processing databases corresponds to Brodersen's fig 1, fig 9, element 3, 23a-23c, 305 and their respective agent corresponds to fig 9, element 315 i.e., respective agents "included therein" reads on" claims 1,8,15.

Hence, one of ordinary skill in the art would have combined the teaching of Brodersen in view Raz at the least suggests "providing a plurality of processing databases of a plurality of.....having a respective agent included therein"

b) At page 7, claims 1,8,15, applicant argues that "In the previous amendment, Applicants have also amended independent claims 1,8, and 15 to require the key and detail to be included within each of the one or more transactions. The Examiner cited Brodersen's writing a transaction log to nodes. The Board agreed that the combined teachings of Brodersen and Raz would disclose or at least suggest updating a record in said second of said plurality of processing databases by using said key and detail. The Board also found that the skilled artisan would have understood that the key and detail included in the databases in Brodersen are used in the updating of the databases. However, claims 1,8,15 now require that there be a key and detail included in each transaction. The combination of Brodersen and Raz does not teach or suggest this requirement.

As to the above argument [b], Brodersen specifically teaches writing transaction log to nodes , each log record including specific identification " key" with respect to identification of table is part of updating database, further function of log on a node is to record a transaction for propagation to central system as detailed in col 10, line 8-13, line 59-64, typically log manager maintains and selects transaction logs, each log associated with log ID for example fig 1, element 17a,17b,17c, therefore, one of ordinary skill in the art would have understood each of the transactions in the transaction log files represented in the form of transaction tables is part of database as taught by Brodersen, to include key and detail [see Board's decision: page 11-12].

Hence, Applicant's remarks are deemed not to be persuasive and claims 1,8,15 stand rejected under 35 USC 103(a) as being unpatentable over Brodersen in view of Raz.

c) At page 7, claims 1,8,15, applicant argues "Appellants also amended claims 1,8,15 in their previous amendment to require that the plurality of processing databases be a plurality of types which must include at least one relational database and one sequential database and one spreadsheet database. Such amendment specifically clarifies the meaning of database types and overcomes any previous citations that Brodersen and Raz describes or suggests a plurality of processing database types...

As to the above argument [c], Examiner notes that Brodersen strongly teaches plurality of processing databases particularly transaction log s and associated entries in master database and updating the transactions into master database for example as detailed in fig 1, fig 9, col 15, line 15-26, further it is noted that Brodersen specifically teaches relational database systems including SQL or structured query language statements executed on relational databases [col 1, line 16-18, col 6, line 34-39]. On the other hand, Raz also teaches multiple databases, more specifically databases of plurality of types such as RDBMS and non-RDBMS [Raz: col 9, line 31-35], further it is noted that Raz strongly teaches different types of databases such as relational databases and non-relational databases because JDBC supports open data base connection and a standard way of interfacing with different types of databases

[Raz: col 7, line 52-54], Raz clearly supports at least multiple databases having different types such as "Oracle", "Lotus" [Raz: fig 4, fig 5C, element 22].

Under 35 USC § 103, by showing insufficient evidence of prima facie obviousness or by rebutting the prima facie case with evidence of secondary indicia of nonobviousness.") (quoting *In re Rouffet*, 149 F.3d 1350, 1355 (Fed. Cir. 1998)).

"Section 103 forbids issuance of a patent when 'the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.'" *KSR Int'l Co. v. Teleflex Inc.*, 127 S. Ct. 1727, 1734 (2007).

The question of obviousness is resolved on the basis of underlying factual determinations including (1) the scope and content of the prior art, (2) any differences between the claimed subject matter and the prior art, (3) the level of skill in the art, and (4) where in evidence, so-called secondary considerations. *Graham v. John Deere Co.*, 383 U.S. 1, 17-18 (1966). See also *KSR*, 127 S. Ct. 1727, 1734 ("While the sequence of these questions might be reordered in any particular case, the [Graham] factors continue to define the inquiry that controls.")

"The combination of familiar elements according to known methods is likely to be obvious when it does no more than yield predictable results."). *Leapfrog Enter., Inc. v. Fisher-Price, Inc.*, 485 F.3d 1157, 1161 (Fed. Cir. 2007) (quoting *KSR Int'l v. Teleflex, Inc.*, 127 S. Ct. 1727, 1739(2007)). "One of the ways in which a patent's subject matter can be proved obvious is by noting that there existed at the time of invention a known

problem for which there was an obvious solution encompassed by the patent's claims." KSR, 127 S. Ct. at 1742.

The reasoning given as support for the conclusion of obviousness can be based on interrelated teachings of multiple patents, the effects of demands known to the design community or present in the marketplace, and the background knowledge possessed by a person having ordinary skill in the art. KSR, 127 S. Ct. at 1740-41. See also Dystar Textilfarben GmbH v. C.H. Patrick Co., 464 F.3d 1356, 1368 (Fed. Cir. 2007).

Examiner noted that court has recently reaffirmed that:

[A]n implicit motivation to combine exists not only when a suggestion may be gleaned from the prior art as a whole, but when the 'improvement' is technology-independent and the combination of references results in a product or process that is more desirable, for example because it is stronger, cheaper, cleaner, faster, lighter, smaller, more durable, or more efficient. Because the desire to enhance commercial opportunities by improving a product or process is universal-and even common-sensical-we have held that there exists in these situations a motivation to combine prior art references even absent any hint of suggestion in the references themselves. In such situations, the proper question is whether the ordinary artisan possesses knowledge and skills rendering him capable of combining the prior art references.

Leapfrog, 485 F.3d at 1162 (holding it "obvious to combine the Bevan device with the SSR to update it using modern electronic components in order to gain the commonly understood benefits of such adaptation, such as decreased size, increased reliability, simplified operation, and reduced cost").

It would have been obvious to one of the ordinary skill in the art at the time of applicant's invention to incorporate the teachings of Raz into Brodersen et al. because both Raz, Brodersen are directed to distributed databases, more specifically Brodersen is directed to database management system including master database server and work group user client databases, creating transaction files and updating the transaction into workgroup databases [fig 9, Abstract], while Raz is directed to dynamically distribution of data and management of information, more specifically, dynamically re-distributing data between data servers and clients [see Abstract, col 3, line 28-35].

One of the ordinary skill in the art at the time of applicant's invention would have been motivated to combine the references because that would have allowed users of Brodersen et al. to use Raz's "open data base connection or "ODBC" protocol that establishes a standard way of interfacing with different types of databases [Raz: col 7, line 52-54], more specifically connecting both relational database and non-relational database that permits an exchange of information between client and server databases, furthermore dynamically controls the location, access and transfer of information between client and servers in a network system as suggested by Raz [col 1, line 55-67], also would have been obvious to substitute and/or connect atleast multiple databases of different types such as "oracle", "lotus" [Raz: fig 4, fig 5C, element 22], to achieve the predictable results of "processing multiple transactions from different databases", bringing the advantages of reliable network for information or database transactional

information, and improving the performance of the dynamic distribution information
[col 1, line 34-36].

Therefore, Applicant's remarks [page 5-8] are deemed not to be persuasive and claims 1-19 stand rejected under 35 USC 103(a) as being unpatentable over Brodersen in view of Raz

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

/Srirama Channavajjala/
Primary Examiner, Art Unit 2166

Conferees:

/Hosain T Alam/
Supervisory Patent Examiner, Art Unit 2166

/Greta L. Robinson/
Primary Examiner, Art Unit 2169